

## PATENT ABSTRACTS OF JAPAN

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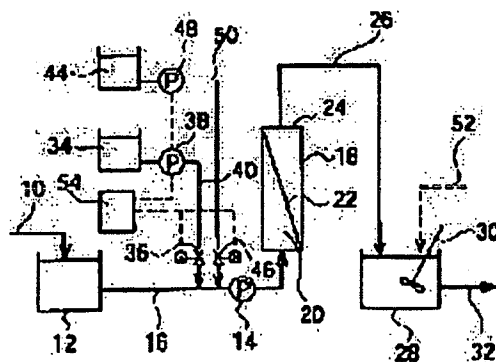
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(54) MEMBRANE SEPARATION METHOD AND DEVICE THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent clogging of a membrane by suppressing sticking and growth of a manganese oxide on the membrane surface.

SOLUTION: When raw water containing manganese ions is fed to a membrane module 18 and is filtered through the membrane, a sodium hypochlorite solution from an oxidant tank 34 is added to the raw water flowing in a piping 16 for a specified time, then a sodium hydrogensulfite solution from a chemical tank 44 is added to the raw water for a specified time. This process is intermittently repeated, then proliferation of bacteria and sticking and growth of manganese dioxide on the surface of a filter membrane 22 are prevented and clogging of the membrane is prevented, thus a filter operation under low filtering resistance for a long period is possible.



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